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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,022	11/20/2003	David E. Hauber	AD-7	6707

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EXAMINER
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GRAY, LINDA L

ART UNIT	PAPER NUMBER
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1734

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/717,022	Applicant(s) HAUBER ET. AL.	
	Examiner Linda L. Gray	Art Unit 1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11-20-03 and 4-2-08.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 15-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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**Detailed Action**

**Election/Restriction**

1. Applicant's election with traverse of **claims 1-4** in the reply filed on 4-2-05 is acknowledged. The traversal is on the grounds that the apparatus and process claims are linked and cannot be restricted. This is not found persuasive because the apparatus claims recite a head member in claim 1 having a removing mechanism and a cutting mechanism where the process claims do not require the laying member to include the removing and cutting mechanisms. The claims are not linked by "means". The requirement is still deemed proper and is therefore made final. **Claims 15-23** are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

**Drawings**

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "39" has been used to designate both a spool (Fig 1, p 7, L 27) and a space (Fig 2, p 9, L 19). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

**Claim Objections**

3. **Claims 3-4** are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claims, amend the claims to place the claims in proper dependent form, or rewrite the claims in independent form. Specifically, the limitations of **claims 3-4** refer to method steps of feeding the tape and are not written as structural limitations for the claimed apparatus. Claims 3-4 do not further limit the structure of the apparatus.

**Claim Rejections - 35 USC 102**

**4.** The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless – b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**5. Claims 1-4, 5, 7-8, and 10-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Frank (US 4,382,836).**

**Claim 1**, Frank teaches an automated cut and restart apparatus (Fig 1; c 8 under "OPERATION") to form a composite laminated structural shape (c 1, L 9-13) having at least one deposited surface layer of resin impregnated tape T formed with continuous fibers (c 1, L 18-21; c 5, L 31-33) of fiberglass which have been pre-impregnated with a resin binder (c 1, L 9-18) and provided on releasable backing layer S (c 5, L 30-37). The apparatus includes laterally moving head member 10 to continuously apply (c 8, under "OPERATION") tape T to the surface of the shape with compaction roller means 24 (c 5, L 38-42). Member 10 also includes a pair of operationally cooperating mechanisms 18 and 94 (c 5, L 27-37 for item 18; c 6, L 58, to c 7, L 2) to first remove layer S from tape T being continuously fed to the shape and thereafter sever a predetermined length of unbacked tape T from tape supply 20 while still being continuously fed (c 8, L 20-24; c 8, L 49-65; c L, L 29-56).

Mechanism 18 enables separation of layer S from tape T while further continuously accumulating layer S. Mechanism 94 includes mechanical cutter means 98 and 100 which cooperate with pinch roller means 66 and 68 on plates 74 and 76 enabling forward tape movement when being fed (c 6, L 20-41; c 8, L 8-47) while preventing backward tape movement during tape severance with means 98 and 100 in that plates 74 and 76 grab

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tape T to keep such extended beyond plates 74 and 76 to mechanism 94 (c 8, L 48, to c 9, L 2). Frank operates member 10 in an automated sequential manner (c 8, under "OPERATION") where electrical control means for member 10 is inherently present within the reference.

**Claim 2**, member 10 is automatically moved forward from a start position to apply a first strip of tape T to the shape and then moved to a next position for placement of another strip as directed by the control means (c 8, under "OPERATION"; abstract). The limitations of **claims 3-4** refer to method steps of feeding the tape and are not written as structural limitations for the claimed apparatus. **Claim 5**, tape T is supplied from spool 20 in member 10 (Fig 1). **Claim 7**, layer S being removed is accumulated with motorized spool 22 in member 10 (Fig 1). **Claim 8**, means 98 and 100 sever tape T in a direction substantially perpendicular to the tape feed direction (Figs 1, 6; Fig 6 is along line 6-6 of Fig 1). **Claim 10**, means 98 employs a knife edge (Fig 6) which is a moving blade (**claim 11**) (c 6, L 58-60).

### **Claim Rejections - 35 USC 103**

**6.** The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**7.** **Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frank as applied to claims 1-4, 5, 7-8, and 10-11 above, and further in view of Kanbara et al. (US 2005/0016670 A1).**

***Claim 6, Frank does not teach that spool 20 includes a friction brake mechanism.***

However, Kanabara et al. teach using a brake with reel 187 to prevent excess reel-out of material on reel 187 (c 10), and for this reason it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided in Frank that spool 20 include a friction brake mechanism.

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**8. Claims 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frank as applied to claims 1-4, 5, 7-8, and 10-11 above.**

*Claim 9, Frank does not teach that means 98 and 100 cut tape T in a bias direction with respect to the tape feed direction.*

However, it is conventional to cut composite tape on the bias according to the shape of the object being made, and for this reason it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided for such in Frank.

*Claim 12, Frank does not teach that means 98 to be a rotating blade instead.*

However, rotating blades are a conventional alternative to straight blades, and it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided in Frank a rotating blade instead because it is obvious to replace one blade with another art recognized alternative blade used for cutting.

**9. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frank as applied to claims 1-4, 5, 7-8, and 10-11 above, and further in view of Evans et al. (US 4,591,402).**

*Claims 13-14, while Frank operates member 10 in an automated sequential manner (c 8, under "OPERATION") where electrical control means for member 10 is inherently present within the reference, Frank does not teach a program controller using a software programmed computer.*

However, Evans et al. teach an apparatus to build a composite shape using using a movable head and software computer programming because such programming allows for flexibility, and for this reason it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have provided in Frank a program controller using a software programmed computer.

### **Conclusion**

**10.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linda Gray whose telephone number is (571) 272-1228. The examiner can normally be reached Monday-Friday from 9:00 am to 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Fiorilla, can be reached at (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

llg

June 13, 2005

*Linda L Gray*  
**LINDA GRAY**  
**PRIMARY EXAMINER**